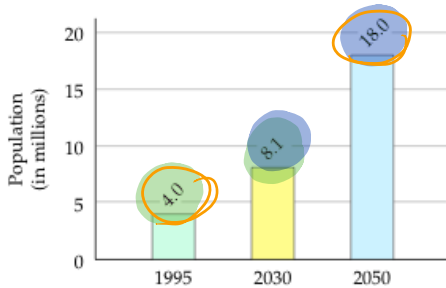


Group work 8:05 - 8:25

24. **Telecommunications** The number of Internet users worldwide went from 0.4 billion in 2000 to 3.2 billion in 2015. (Source: International Telecommunication Union) Find the percent increase in the number of Internet users from 2000 to 2015.

25. **Demographics** The graph below shows the projected growth of the number of Americans aged 85 and older.

- a. What is the percent increase in the population of this age group from 1995 to 2030?
 b. What is the percent increase in the population of this age group from 2030 to 2050?
 c. What is the percent increase in the population of this age group from 1995 to 2050?
 d. How many times larger is the population in 2050 than in 1995? How could you determine this number from the answer to part c?



26. **Auto Sales** U.S. auto sales increased from 16.5 million in 2014 to 17.5 million in 2015. (Source: Los Angeles Times) Find the percent increase in auto sales from 2014 to 2015. Round to the nearest tenth of a percent.

27. **Cable TV** In 2006, 65.4 million people subscribed to cable television. In 2013, that number had decreased to 54.4 million. (Source: Federal Communications Commission) Find the percent decrease in the number of cable TV subscribers from 2006 to 2013. Round to the nearest tenth of a percent.

28. **Consumption of Eggs** During the last 50 years, the consumption of eggs in the United States has decreased by 17%. Fifty years ago, the average consumption was 307 eggs per person per year. What is the average consumption of eggs today?

29. **Millionaire Households** The following table shows the estimated number of millionaire households (households with a net worth of at least \$1 million, not including primary residence) in the United States for selected years. (Source: Spectrem Group)

- a. What is the percent increase in the estimated number of millionaire households from 2000 to 2007? Round to the nearest tenth of a percent.
 b. Find the percent decrease in the estimated number of millionaire households from 2007 to 2008. Round to the nearest tenth of a percent.

Year	Millionaire households
2000	6,300,000
2007	9,200,000
2008	6,700,000
2013	9,600,000

(in millions)

9.2
6.7

$$\begin{aligned}
 \text{percent change} &= \text{new/old} - 100\% \\
 &= 6.7/9.2 - 100\% \\
 &= 0.7283 - 100\% \\
 &= 72.83\% - 100\% \\
 &= -27.17\%
 \end{aligned}$$

ANS

27.17% decrease

28. **Consumption of Eggs** During the last 50 years, the consumption of eggs in the United States has decreased by 17%. Fifty years ago, the average consumption was 307 eggs per person per year. What is the average consumption of eggs today?

$$\text{percent change} = \text{new} / \text{old} - 100\%$$

$$-17\% = \text{new} / 307 - 100\%$$

Now solve for "new"

$$83\% = \text{new} / 307$$

Add 100%

$$0.83 = \text{new} / 307$$

Convert percent to decimal

$$254.81 = \text{new}$$

Multiply 307

$$\rightarrow \underline{\text{ANS}} \boxed{255 \text{ eggs}}$$

Method 1

Method 2

Method 1

$$\frac{83}{100} = \frac{\text{new}}{307}$$

Rewrite as proportion.

$$100 \text{ new} = 25481$$

Cross multiply.

$$\text{new} = 254.81$$

Divide 100.

↓ round

$$\underline{\text{ANS}} \boxed{255 \text{ eggs}}$$

Method 2